IN THE SPECIFICATION

Pages 10 and 11, the paragraph bridging these pages from page 10, line 25 to page 11, line 12, replace the bridging paragraph with:

As shown in Fig. 3, a depression of conical or cylindrical form is provided on the top of the carbon material. ~~Or prepare a~~ A depression of quadrangular prism, inverted quadrangular pyramid, prism, or inverted pyramid also may be utilized. This depression does not reach the bottom to open the hole. This depression can be of any size. A commercially available 96-hole microplate has a circular top of about 6.5 mm in diameter. The carbon material on the bottom is preferred to be thinner, but must not be fragile. The preferred thickness is from 0.03 to 2mm. A method of measuring luminescence on an illuminated surface can be used for measurement in this case.

Page 11, the first full paragraph, lines 15 to 25, replace the paragraph with:

As shown in Fig. 4, two circular tubes or square tubes of carbon material are manufactured, and are held at a small space in the lateral or vertical direction. The appropriate

space will be from about 0.005 to 4mm. A small amount of a sample liquid of about 0.02 microliter to 200 microliter is dripped into this space with these rods as the base and the ~~resultingluminescence~~ resulting luminescence is measured and analyzed by a measuring apparatus. The size of each rod in the specimen ~~areacan be any but~~ area preferably ~~be~~ is 0.005 square mm to 100 square mm.

Pages 12 and 13, the paragraph bridging these pages from page 12, line 2 to page 13, line 1, replace the bridging paragraph with:

As shown in Fig.5, an automatic liquid handler (given in "A. Sample handling (1)" of Fig. 5) or a pipette (given in "A. Sample handling (2)" of Fig. 5) is used artificially to pipette the sample into the sample holder hole. The amount of the sample 3 can be from about 0.02 to 200 microliters. It is not preferred to allow it to leak around the hole. Although the lower portion of the holder has a hole having a diameter of 0.0001 to 5 square millimeter, the sample is held in the holder 4 by surface tension (given in "B. Putting the sample container on the instrument stage" of Fig. 5). If the amount of sample 3 is small, uneven distribution in the hole may result in a big fluctuation at the time of measurement. So a

slight vibration is give to ensure uniform distribution of the sample. If there is a great amount of sample, the sample surface may be uneven due to the surface tension of the sample. So after pipetting into the sample holder, a slight vibration is given in the similar way to get a smooth surface. To prevent the holder 4 from being contaminated and unwanted interfering light or scattered light from occurring, it is preferred that the holder 4 can be held and transferred without the top or bottom surface exposed to the light being touched by hand.

Page 13, the first full paragraph, lines 2 to 13, replace the paragraph with:

The center of the bottom hole of the sample holder 4 is preferred to be located at the center of light. Preferably, the holder base is provided with a guide to ensure that the sample is held at a specified position (given in "B. Putting the sample container on the instrument stage" of Fig. 5). When the holder is located at a deviated position, measurement may be insufficient. The sample holder is placed on the light measuring instrument holder base 10. The sample holder in the apparatus is set to the position of the measuring unit exposed

to the light, and measurement is carried out (given in C. Measurement in Fig. 5).

Pages 13 - 15, the paragraph bridging these pages from page 13, line 15 to page 15, line 13, replace the bridging paragraph with:

Figs. 6 to 9 show the arrangement of the optical system using this sample holder 4. The apparatus can perform measurement according to the method of measuring luminescence on a transparent surface (from Figs. 6 to 7), method of measuring luminescence on an illuminated surface (Figs. 8 and 9). The sample holder 4 is set on the sample stage in any of these methods. Excited light emitted from the light source 6 is condensed by a lens 7. The light passes through a colored glass filter 8, and the wavelength is selected. Then the sample is exposed to the light. A Xenon lamp, tungsten lamp or laser is used as a light source 6. The solid angle of the, excited light in this case and the distance from the light source and lens to the sample are preferred to be fitted to the size of the sample and sample holder. Direct irradiation of the light applied to the sample holder sample may give rise to scattered light or excess light coming from the sample holder and holder material. So the excited light applied to

the sample as parallel light is preferred to ~~be~~ have a size equivalent to or smaller than the illuminated area of the sample. Or when light comes into a focus in or around the sample, it is preferred that the opening of the holder and luminous flux have the same size with each other or the size of the luminous flux is slightly smaller. When method of measuring luminescence on a transparent surface and the light is not parallel, the center of the bottom hole is preferred to be the focus of light in the sample holder shown in Figs. 1 and 2. In this case, a light source 6 is placed on the bottom and the measuring instrument 11 on the top, as shown in Fig. 7, and light is applied from the bottom of the measuring instrument container holder, thereby measuring light. This is done with fluorescence and phosphorescence due to excited light occurring non-directionally, and more effective light measurement and detection may be made. In Fig. 3, method of measuring luminescence on an illuminated surface can be used. When the method of measuring luminescence on an illuminated surface is used, the bottom of the sample is preferred to be a focus in the sample holder of Figs. 1, 2 and 3. If carbon material is used also on the side of the sample holder in this case, both excited light and luminescence does not cross the sample holder. To ensure more effective irradiation and light

condensation, a dichroic filter, split mirror, translucent mirror, plane mirror, concave mirror or optical fiber may be used.

Pages 18 and 19, the paragraph bridging these pages from page 18, line 1 to page 19, line 2, replace the bridging paragraph with:

Figs. 6 and 7 show the schematic diagram of a method of measuring luminescence on a transparent surface. In Fig. 7, a light source 6 is installed on the bottom to emit excited light. In Fig. ~~8~~ 7, a reflecting mirror 12 is installed in the path of excited light to reflect the excited light. ~~Similarly~~ In Fig. 8, a mirror 15 can be placed on the side of the photometer to reflect fluorescence or phosphorescence. Figs. 8 and 9 are the schematic diagrams of the method of measuring luminescence on an illuminated surface. In Fig. 8, a dichroic filter 13 is placed to reflect the excited light, with fluorescence and phosphorescence allowed to pass by. A concave mirror 15 is used to concentrate reflected fluorescence or phosphorescence onto the photometer 11. A plane mirror, lens or optical fiber may be used for this purpose. In order that the sample is exposed to

excited light, a split mirror 14 having a portion without a mirror is installed in Fig. 9 at the position where fluorescence or phosphorescence passes by. Anything which may be exposed to excited light is not placed in the path of fluorescence or phosphorescence. This is intended to eliminate or minimize the possibility of entry into the photometer of the light coming from the sample holder and holder material due to excited light or scattered light. The fluorescence or phosphorescence can be reflected by a mirror and excited light can be applied through the split of the mirror.

Page 19, the second full paragraph, lines 8 to 10, replace the paragraph with:

(2) Interference is avoided in measurement of light coming from the sample holder and deteriorates detection limit.